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EXAMINER	
VAN DOREN, BETH	

ART UNIT	PAPER NUMBER
3623	

DATE MAILED: 04/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/726,063	CAULFIELD, DAVID L.	
	Examiner	Art Unit	
	Beth Van Doren	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 November 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The following is a non-final, first office action on the merits. Claims 1-22 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 12, and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by LeVander (U.S. 6,216,108).

4. As per claim 1, LeVander teaches a method of determining the expected time required for the performance of a task by an employee, comprising the steps of:

a) entering into a computer memory an initial estimate of the time normally required for the performance of said task (See at least column 4, lines 1-8, 35-40, and 65-67, column 5, lines 1-2, column 7, lines 15-35 and 60-67, column 8, lines 20-25, and column 9, lines 1-32, wherein initial estimates of the time required is entered);

b) entering into said memory data representing the actual time used by said employee in performing tasks (See at least column 4, lines 1-8, 35-40, and 65-67, column 5, lines 1-2, column 10, lines 15-35 and 63-67, column 11, lines 1-10 and 20-35, column 12, lines 25-30 and 65-67, and column 13, lines 35-45 and 60-65, wherein actual time used is entered);

c) maintaining in said memory for said employee a cumulative historical efficiency factor representing the ratio of the sum of times previously actually used by said employee for

the performance of tasks to the sum of the times previously estimated for the performance of those tasks (See at least column 4, lines 1-8, 35-40, and 65-67, column 5, lines 1-2, column 7, lines 15-35 and 60-67, column 8, lines 20-25, column 11, lines 1-10 and 20-35, column 12, lines 25-30 and 65-67, column 13, lines 35-45 and 60-65, wherein the performances of the employee (the actual times versus the estimated times) are aggregated and stored);

d) multiplying said initial estimate by said efficiency factor (See at least column 4, lines 1-8, 35-40, and 65-67, column 5, lines 1-2, column 7, lines 15-35 and 60-67, column 8, lines 20-25, column 9, lines 1-32, wherein the efficiency factor is considered in the initial estimates and used to increase the estimate); and

e) generating from said multiplication an adjusted estimate of the time required for the performance of said task by said employee (See at least column 4, lines 1-8, 35-40, and 65-67, column 5, lines 1-2, column 7, lines 15-35 and 60-67, column 8, lines 20-25, column 9, lines 1-32).

5. As per claim 2, LeVander teaches a method further comprising the steps of:

f) using said adjusted estimates for a plurality of employees to compute a target time for the completion of a job involving the sequential performance of a plurality of tasks (See at least column 9, lines 1-32, column 10, lines 15-35 and 63-67, and column 11, lines 1-10 and 20-35, wherein the estimates are used in a work order, the work order used as target times for a plurality of employees to complete a job with a plurality of tasks).

6. As per claim 12, LeVander teaches a computerized method of operating an automotive repair shop, comprising the steps of:

a) estimating the labor hours required to perform a sequence of tasks necessary for a given repair job (See at least column 4, lines 1-8, 35-40, and 65-67, column 5, lines 1-2, column 6, lines 5-6, column 7, lines 15-35 and 60-67, column 8, lines 20-25, and column 9, lines 1-32, wherein estimates of the labor time required is entered for a repair job);

b) maintaining a computer database containing, for each task-performing employee, efficiency data representing a historical average of the ratio of the hours actually spent on a task by the employee to the hours estimated for that task (See at least column 4, lines 1-8, 35-40, and 65-67, column 5, lines 1-2, column 7, lines 15-35 and 60-67, column 8, lines 20-25, column 11, lines 1-10 and 20-35, column 12, lines 25-30 and 65-67, column 13, lines 35-45 and 60-65, wherein the performances of the employee (the actual times versus the estimated times) are aggregated and stored);

c) generating from said database a revised estimate of said hours for said task (See at least column 4, lines 1-8, 35-40, and 65-67, column 5, lines 1-2, column 7, lines 15-35 and 60-67, column 8, lines 20-25, column 9, lines 1-32, wherein the estimate of hours required is revised over time based on the actual performance of the employees); and

d) updating said efficiency data in said database when said employee has performed said task (See at least column 4, lines 1-8, 35-40, and 65-67, column 5, lines 1-2, column 7, lines 15-35 and 60-67, column 8, lines 20-25, column 10, lines 55-67, column 11, lines 1-10 and 20-35, column 12, lines 25-30 and 65-67, column 13, lines 35-45 and 60-65, wherein the performances of the employee (the actual times versus the estimated times) are stored after each completion).

7. As per claim 13, LeVander teaches a method wherein said updating is automatically done by said employee's entering the start and end times of his performance of said task or portions

thereof in said database (See at least figure 3 and column 8, lines 20-25, column 10, lines 55-67, column 11, lines 1-10 and 20-35, column 12, lines 25-30 and 65-67, column 13, lines 35-45 and 60-65).

8. Claims 21-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Li (U.S. 6,609,050).

9. As per claim 21, Li teaches a computerized method of predicting the time of completion of a job involving the performance of sequential tasks by a plurality of employees, comprising the steps of:

a) maintaining in a database data representing the availability time at which each employee is expected to next be available (See at least figures 9 and 17, column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65, wherein employee availability data is maintained);

b) selecting an employee for each of said sequential tasks (See at least column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65, wherein an employee is selected);

c) computing, for each employee, a block of time expected to be needed for the performance of his task (See at least figures 9 and 17, column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65, wherein a block of time for the performance of the task is determined);

d) adding said blocks of time to the availability time of the employee selected to perform the first of said tasks (See at least column 3, lines 15-31, column 4, lines 35-55, and column 6,

lines 40-65, wherein the technician employee is scheduled and no longer available in the system); and

e) generating from said adding step an indication of the expected completion time of said job (See at least figures 9 and 17, column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65, wherein an estimated completion time is offered to the user).

10. As per claim 22, Li teaches a method further comprising the step of:

f) adding, for each employee, his computed block of time to his current availability time to determine his availability time for the next job (See at least column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65, wherein the technician employee is scheduled and no longer available in the system).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 3-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li (U.S. 6,609,050) in view of LeVander (U.S. 6,216,108).

13. As per claim 3, Li teaches a method of predictively scheduling a job performed for a customer involving the performance of a plurality of tasks by a plurality of employees each performing one of said tasks, comprising the steps of:

a) entering into a computer memory an estimate of the time required to perform each of said tasks (See at least figures 9, 17, 22, and 26, column 4, lines 35-55, column 8, lines 15-25, wherein an estimate is entered);

b) maintaining in said memory information for each employee regarding the availability time at which that employee is next expected to be available to perform a given one of said tasks (See at least figures 9 and 17, column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65, wherein employee availability data is maintained);

c) entering into said memory the beginning and end time of each task or portion thereof performed by each of said employees (See at least figures 4, 9, 17, 22, and 26, column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65, wherein a technician, start time, and end time are identified (for example, employee a, 2 pm, 1 hr));

d) maintaining in said memory, for each employee, an efficiency factor as well as maintaining in memory the time historically actually used to perform tasks (See at least figures 22 and 26, column 3, lines 15-40, column 7, lines 10-30, and column 8, lines 30-45, wherein time used and employee ratings are maintained);

e) selecting from said memory for a first of said tasks a first employee next expected to be available to perform said first task (See at least column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65, wherein an employee is selected);

f) choosing the employee based on the efficiency factor and computing, for each employee, a block of time expected to be needed for the performance of his task (See at least figures 9 and 17, column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65, wherein a block of time for the performance of the task is determined);

g) adding said expected actual time to the availability time of the selected employee to generate a new availability time of the selected employee for subsequent jobs (See at least column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65, wherein the technician employee is scheduled and no longer available in the system);

h) repeating said selecting, choosing and adding steps for each additional task (See at least figures 9 and 17, column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65);

i) generating from said repeating step the total expected actual time for the performance of said job (See at least figures 9, 17, 22, and 26, column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65);

j) adding said total expected actual time to the availability time of said first employee (See at least column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65, wherein the technician employee is scheduled and no longer available in the system); and

k) generating from said last-named adding step an expected completion time of said job (See at least figures 4, 9, 17, 22, and 26, column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65, wherein a technician, start time, and end time are identified (for example, employee a, 2 pm, 1 hr) for each task making up the overall job).

However, Li does not expressly disclose: the efficiency factor representing the ratio of the time historically actually used by said employee to perform tasks to the time estimated for the performance of those tasks or multiplying said estimate of the time required to perform said first task by said efficiency factor of the selected employee to generate an expected actual time for performing said first task.

LeVander teaches an efficiency factor representing a ratio of time historically used to perform tasks to the time estimated for the performance of those tasks (See at least column 4, lines 1-8, 35-40, and 65-67, column 5, lines 1-2, column 7, lines 15-35 and 60-67, column 8, lines 20-25, column 11, lines 1-10 and 20-35, column 12, lines 25-30 and 65-67, column 13, lines 35-45 and 60-65, wherein the performances of the employee (the actual times versus the estimated times) are aggregated and stored); and

multiplying said estimate of the time required to perform said first task by said efficiency factor of the selected employee to generate an expected actual time for performing said first task (See at least column 4, lines 1-8, 35-40, and 65-67, column 5, lines 1-2, column 7, lines 15-35 and 60-67, column 8, lines 20-25, column 9, lines 1-32, wherein the efficiency factor is considered in the initial estimates and used to increase the estimate).

Both Li and LeVander disclose estimating based on employee data and performance in the repair services industries. Li specifically discloses rating the performance of a technician as best and worst, etc. It would have been obvious to one of ordinary skill in the art at the time of the invention to use actual time versus estimated time as an efficiency factor when rating the performance of the technician of Li in order to more efficiently and accurately schedule work by having a better understanding of the actual time it takes a specific employee to complete a job. Li discusses the importance of access to employee data for efficient scheduling in column 1, lines 30-60.

14. As per claim 4, Li teaches a method further comprising the steps of:

1) maintaining in said memory, for each employee, data representing the idle time of said employee accrued during the performance of his task (See at least figures 4, 9, and 17,

column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65, which discloses bottlenecks being stored in performance data);

m) computing, for each employee, the historically average idle time accrued during the performance of comparable tasks (See at least figures 4, 9, and 17, column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65, which discloses average bottleneck scores being stored in performance data over a period of, for example, a year); and

n) considering the total average idle time for all selected employees and selecting an employee and generating said expected completion time of said job (See at least figures 4, 9, and 17, column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65).

However, Li does not expressly disclose adding the total average idle time to said total expected actual time when generating said expected completion time of said job.

LeVander discloses adding total average historical time data to said total expected actual time when generating said expected completion time of said job (See at least column 4, lines 1-8, 35-40, and 65-67, column 5, lines 1-2, column 7, lines 15-35 and 60-67, column 8, lines 20-25, column 9, lines 1-32, wherein factors specific to the historical performance of the crew is incorporated in time allotments).

Both Li and LeVander disclose estimating based on employee data and performance in the repair services industries. Li specifically discloses rating the performance of a technician as best and worst, etc. It would have been obvious to one of ordinary skill in the art at the time of the invention to use idle time as a factor when determining the time estimates of Li in order to more efficiently and accurately schedule work by having a better understanding of the actual

time it takes a specific employee to complete a job. Li discusses the importance of access to employee data for efficient scheduling in column 1, lines 30-60.

15. As per claim 5, Li teaches a method further including the step of periodically generating a notification to said customer of the task currently being performed on said job (See at least figures 22 and 26, column 3, lines 15-40, column 7, lines 10-30, and column 8, lines 30-45, wherein a notification to said customer can be made over the network of the status of the tasks).

16. As per claim 6, Li teaches in a vehicular repair shop, a method of monitoring the performance of the repair of a vehicle by technicians, comprising the steps of:

a) entering into a computer memory, for each task involved in the repair of said vehicle, information representative of

i) the identity of the vehicle (See at least figures 4, 9, and 17, and column 5, line 20-25, wherein vehicle identification data is stored in the database),

ii) the identity of the technician, the start time of the task and the end time of each portion of the task (See at least figures 4, 9, and 17, column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65, wherein a technician, start time, and end time are identified (for example, employee a, 2 pm, 1 hr)), and

iii) an estimate of the time normally believed to be required to perform the task (See at least column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65, wherein an estimate for the task is in the database of the system);

b) computing, from said entered information, the efficiency of said technician using best and worst scores based on performance (See at least column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65).

However, Li does not expressly disclose computing a ratio the actual time taken by the technician to perform the task to the time estimated for the performance of the task.

LeVander discloses computing a ratio the actual time taken by the technician to perform the task to the time estimated for the performance of the task (See at least column 4, lines 1-8, 35-40, and 65-67, column 5, lines 1-2, column 7, lines 15-35 and 60-67, column 8, lines 20-25, column 11, lines 1-10 and 20-35, column 12, lines 25-30 and 65-67, column 13, lines 35-45 and 60-65, wherein the relationship of the performances of the employee (the actual times versus the estimated times) are stored).

Both Li and LeVander disclose estimating based on employee data and performance in the repair services industries. Li specifically discloses rating the performance of a technician as best and worst, etc. It would have been obvious to one of ordinary skill in the art at the time of the invention to use actual time versus estimated time as a factor when rating the performance of the technician of Li in order to more efficiently and accurately schedule work by having a better understanding of the actual time it takes a specific employee to complete a job. Li discusses the importance of access to employee data for efficient scheduling in column 1, lines 30-60.

17. As per claim 7, Li teaches a method further comprising the step of:

c) generating a report of said computed efficiency (See at least column 3, lines 15-40, column 4, lines 35-55, and column 6, lines 40-65).

18. As per claim 8, Li teaches a method further comprising the step of

c) periodically generating a report of the identity of the technician having possession of said vehicle at any given time, and the task being performed thereon (See at least figures 22 and 26, column 3, lines 15-40, column 7, lines 10-30, and column 8, lines 30-45, wherein a report

can be generated concerning the technician that serviced the car and what service was performed, including temporal information).

19. As per claim 9, Li teaches a method further comprising the step of

c) computing, from said entered information, the idle time of said technician (See at least figures 4, 9, and 17, column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65, which discloses bottlenecks).

20. As per claim 10, Li teaches a method further comprising the step of

c) computing, from said entered information, the idle time of said vehicle being performed thereon (See at least figures 4, 9, 17, 22, and 26, column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65, which discloses bottlenecks and the breakdown of the time and performance from the vehicle being brought in the shop until it drives away).

21. As per claim 11, Li teaches a method further comprising the step of

c) separately recording in said memory the beginning and end time of a rework of a previously performed task (See at least figures 22 and 26, column 3, lines 15-40, column 7, lines 10-30, and column 8, lines 30-45); and

d) adding, in said computing step, the rework time to said actual time taken by said technician to perform said task (See figure 26, wherein the total time for each job is maintained).

22. Claims 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over LeVander (U.S. 6,216,108) in view of Li (U.S. 6,609,050).

23. As per claim 14, LeVander teaches a method further comprising the step of:

e) maintaining, for each employee, the expected time of completion of all the tasks for whose performance said employee has been scheduled (See at least column 9, lines 1-32, column 10, lines 15-35 and 63-67, and column 11, lines 1-10 and 20-35, wherein a work order indicates expected times of completion for the scheduled employees). However, LeVander does not expressly disclose maintaining in a database availability data.

Li teaches maintaining in a database availability data (See at least column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65, wherein a database maintains availability data for technicians).

Both Li and LeVander disclose estimating based on employee data and performance in the repair services industries. It would have been obvious to one of ordinary skill in the art at the time of the invention to maintain availability data in a database in order to allow for the more efficient and accurate creation of work orders and schedules through organizing the knowledge about what employees are available and what the skill levels are of these employees. Li discusses the importance of quick access to data, etc. in column 1, lines 30-60.

24. As per claim 15, LeVander teaches a method further comprising the step of:

f) computing a schedule for said sequence of tasks in accordance with said revised estimate (See at least column 9, lines 1-32, column 10, lines 15-35 and 63-67, and column 11, lines 1-10 and 20-35, wherein a schedule is computed). However, LeVander does not expressly disclose computing a schedule in accordance with said availability data.

Li discloses computing a schedule in accordance with said technician-based estimate and said availability data (See at least column 3, lines 15-31, column 4, lines 35-55, and column 6,

lines 40-65, wherein the job is scheduled using the performance knowledge of an employee and the availability data).

Both Li and LeVander disclose estimating based on employee data and performance in the repair services industries. It would have been obvious to one of ordinary skill in the art at the time of the invention to create a schedule using availability data in order to allow for the more efficient and accurate creation of work orders and schedules through organizing the knowledge about what employees are available and what the skill levels are of these employees. Li discusses the importance of quick access to data, etc. in column 1, lines 30-60. Furthermore, it is old and well known to maintain a list of employees availability for scheduling purposes in service industries.

25. As per claim 16, LeVander teaches a method further comprising the step of:

g) generating an indication of the target time for completion of said repair job in accordance with said computed schedule (See at least column 9, lines 1-32, column 10, lines 15-35 and 63-67, and column 11, lines 1-10 and 20-35, wherein a work order indicating expected times of completion is generated).

26. As per claim 17, LeVander teaches a method further comprising the step of:

e) maintaining in said database idle time data representing a historical average of the time that a vehicle undergoing said repair job is in said shop (See at least column 4, lines 1-8, 35-40, and 65-67, column 5, lines 1-2, column 7, lines 15-35 and 60-67, column 8, lines 20-25, column 11, lines 1-10 and 20-35, column 12, lines 25-30 and 65-67, column 13, lines 35-45 and 60-65, wherein the performances of the employee (actual versus estimated times) are aggregated and stored). However, Levander does not expressly disclose that the time data is idle time data.

Li discloses idle time data (See at least figures 4, 9, and 17, column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65, which discloses bottlenecks).

Both Li and LeVander disclose estimating based on employee data and performance in the repair services industries. Li specifically discloses rating the performance of a technician as best and worst, etc. It would have been obvious to one of ordinary skill in the art at the time of the invention to use idle time as a factor when rating the performance of the technician of Li in order to more efficiently and accurately schedule work by having a better understanding of the actual time it takes a specific employee to complete a job. Li discusses the importance of access to employee data for efficient scheduling in column 1, lines 30-60.

27. As per claim 18, LeVander teaches a method further comprising the step of:

f) computing a schedule for the completion of said sequence of tasks in accordance with said revised estimate (See at least column 9, lines 1-32, column 10, lines 15-35 and 63-67, and column 11, lines 1-10 and 20-35, wherein a schedule is compiled using the estimates). However, Levander does not expressly disclose idle time data.

Li discloses idle time data (See at least figures 4, 9, and 17, column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65, which discloses bottlenecks).

Both Li and LeVander disclose estimating based on employee data and performance in the repair services industries. Li specifically discloses rating the performance of a technician as best and worst, etc. It would have been obvious to one of ordinary skill in the art at the time of the invention to use idle time as a factor when rating the performance of the technician of Li in order to more efficiently and accurately schedule work by having a better understanding of the

actual time it takes a specific employee to complete a job. Li discusses the importance of access to employee data for efficient scheduling in column 1, lines 30-60.

28. As per claim 19, LeVander teaches a method further comprising the step of:

e) maintaining in said database for each employee time data representing a historical average of the time experienced by said employee during the performance of a comparable task (See at least column 4, lines 1-8, 35-40, and 65-67, column 5, lines 1-2, column 7, lines 15-35 and 60-67, column 8, lines 20-25, column 11, lines 1-10 and 20-35, column 12, lines 25-30 and 65-67, column 13, lines 35-45 and 60-65, wherein the performances of the employee (the actual times versus the estimated times) are aggregated and stored). However, LeVander does not expressly disclose that the time data is idle time data.

Li discloses idle time data (See at least figures 4, 9, and 17, column 3, lines 15-31, column 4, lines 35-55, and column 6, lines 40-65, which discloses bottlenecks).

Both Li and LeVander disclose estimating based on employee data and performance in the repair services industries. Li specifically discloses rating the performance of a technician as best and worst, etc. It would have been obvious to one of ordinary skill in the art at the time of the invention to use idle time as a factor when rating the performance of the technician of Li in order to more efficiently and accurately schedule work by having a better understanding of the actual time it takes a specific employee to complete a job. Li discusses the importance of access to employee data for efficient scheduling in column 1, lines 30-60.

29. As per claim 20, claim 20 recites equivalent limitations to claim 18 and is therefore rejected using the same art and rationale as relied upon in the rejection of claim 18.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Storch et al. (U.S. 5,920,846) discloses using historical data to produce job estimates.

Fields et al. (U.S. 5,111,391) teaches scheduling employees using skill level, work percentages, and idle time considerations.

Bergeon (U.S. 6,546,302) discloses scheduling and sequencing vehicles in an efficient manner based on characteristics and parameters.

Moskowitz (U.S. 6,339,736) discloses a vehicle-monitoring tool for the distribution of automotive services.

Wayne et al. (U.S. 5,006,983) teaches a service allocation system that queues task assignments to different individuals.

Inoue (U.S. 5,317,503) discloses producing accurate car estimates.

Kirkevold et al. (U.S. 6,263,322) discloses an automotive service system that generates repair orders that maintains history records.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beth Van Doren whose telephone number is (703) 305-3882. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (703) 305-9643. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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bvd
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